



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,064	03/25/2004	Scott R. Conley	87610AEK	7002

7590 08/01/2006

Paul A. Leipold  
Patent Legal Staff  
Eastman Kodak Company  
343 State Street  
Rochester, NY 14650-2201

EXAMINER
----------

KUGEL, TIMOTHY J

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/809,064	CONLEY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Timothy J. Kugel	1712	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 2, 7, 11, 14, 16, 19, 20, 22 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24-27 and 30 is/are rejected.
- 7) ☒ Claim(s) 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24-27 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-27 and 30 are pending as amended on 20 July 2006, claims 28, 29 and 31-33 being cancelled. Claims 2,7,11,14,16,19,20,22 and 23 are withdrawn from consideration.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Since no prior art was found that anticipates or renders obvious the elected species, the search of the Markush-type claim was extended.
4. Due to new grounds of rejection presented below, the finality of the rejection of the last Office action is withdrawn.

### ***Claim Objections***

5. Claims 1,3-6,8-10,12,13,15,17,18,21,24-27 and 30 are objected to because of the following informalities: Claim 1 recites the term 'EL device' and should recite the term 'electroluminescent device'. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

6. Applicant's statement of common ownership, filed 20 July 2006, has been fully considered and overcomes the prior art under 35 U.S.C. 103(c).

Art Unit: 1712

The rejection of claims 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24, 27 and 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,661,023 (Hoag hereinafter) has been withdrawn.

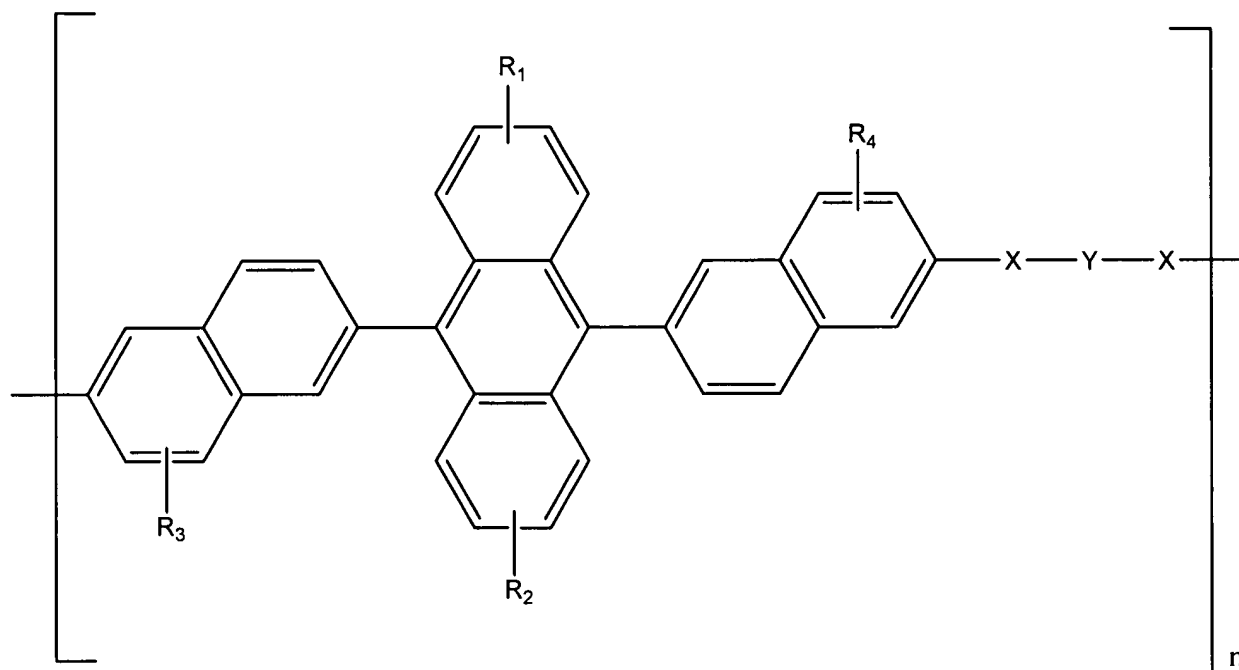
The rejection of claims 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24 and 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,670,053 (Conley '053 hereinafter) has been withdrawn.

The rejection of claims 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24, 27 and 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,828,044 (Conley '044 hereinafter) has been withdrawn.

The rejection of claims 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24, 25-27 and 30 under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication 2004/0001969 (Cosimbescu '969 hereinafter) has been withdrawn.

7. Claims 1, 3-6, 8-10, 12, 13, 15, 17, 18, 21, 24 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as being unpatentable over US 6,361,887 (Shi hereinafter).

Shi teaches electroluminescent devices which emit blue light (Column 1 Lines 11-25) comprising a light emitting layer including an anthracene material of the following structure

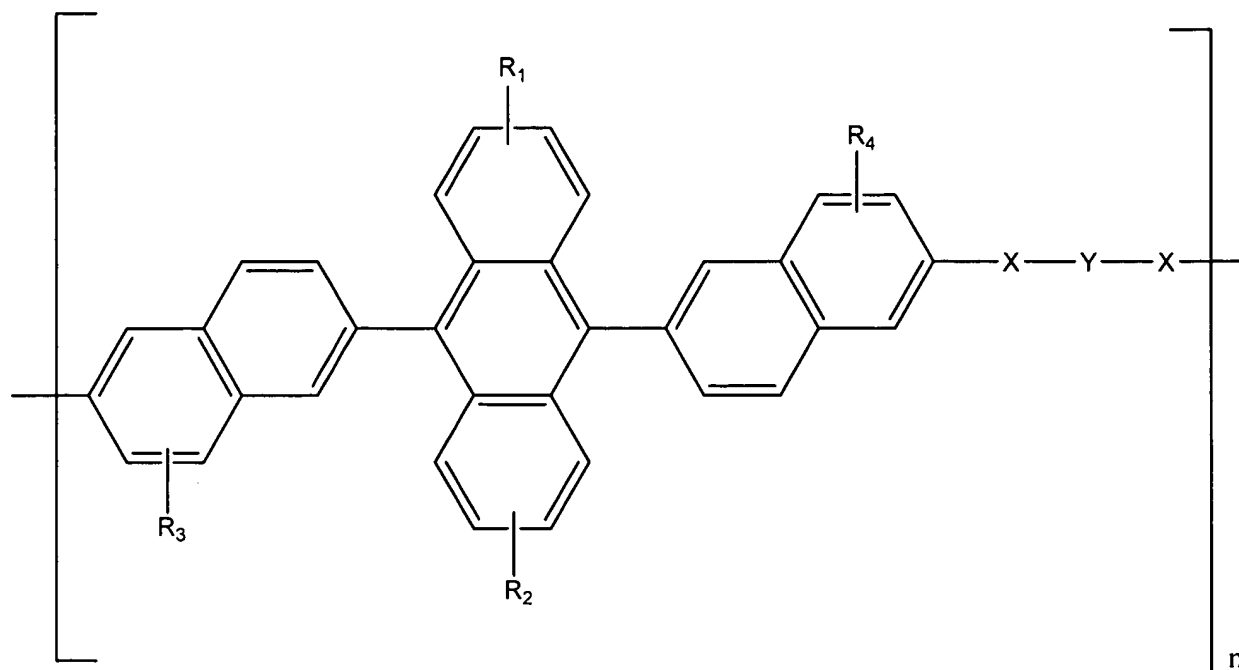


which reads on the anthracene material of claims 1, 3-6, 8, 10, 12, 13, 15, 18 and 30 when one of  $R_1$  or  $R_2$  is an aryl group and the other of  $R_1$  or  $R_2$  and  $R_3$  and  $R_4$  are hydrogen atoms (Abstract, Column 2 Lines 4-41).

Further, one of ordinary skill in the art would immediately envisage the anthracene material of claims 9, 17, 21 and 24 when the R group in the 2 position is a monocyclic phenyl group, a naphthyl group or a biphenyl group, or the methyl phenyl group of Inv-1 in claim 24 (Abstract, Column 2 Lines 4-41) and wherein X is a perylene group (Column 4 Line 64 – Column 5 Line 24).

8. Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shi in view of US Patent Application Publication 2002/0027416 (Kim hereinafter).

Shi teaches electroluminescent devices which emit blue light comprising a light emitting layer including an anthracene material of the following structure



which reads on the anthracene material of claims 1, 3-6, 8, 10, 12, 13, 15, 18 and 30 when one of R<sub>1</sub> or R<sub>2</sub> is an aryl group and the other of R<sub>1</sub> or R<sub>2</sub> and R<sub>3</sub> and R<sub>4</sub> are hydrogen atoms; and one of ordinary skill in the art would immediately envisage the anthracene material of claims 9, 17, 21 and 24 when the R group in the 2 position is a monocyclic phenyl group, a naphthyl group or a biphenyl group, or the methyl phenyl group of Inv-1 in claim 24 and wherein X is a perylene group as detailed above.

Shi does not disclose expressly a device with second light emitting layer comprising rubrene to provide white light.

Kim discloses a multi-layer electroluminescent device including a layer comprising rubrene to produce white light (¶0097).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the rubrene containing layer of Kim in the electroluminescent

Art Unit: 1712

devices of Shi. The motivation to do so would have been to provide a layer that prevents lowering of luminous efficiency (Kim ¶0013).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,361,886  
US 6,984,459

03-2002  
01-2006

Shi et al.  
Noguchi et al.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Kugel whose telephone number is (571) 272-1460. The examiner can normally be reached 6:00 AM – 4:30 PM Monday - Thursday.

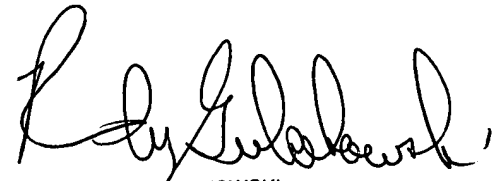
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 1712

you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).

TJK  
Art Unit 1712

A handwritten signature in black ink, appearing to read 'Randy Gulakowski', written in a cursive style.

RANDY GULAKOWSKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700